OIPE

RAW SEQUENCE LISTING DATE: 05/21/2002
PATENT APPLICATION: **US/10/076,840** TIME: 14:22:23

Input Set : **N:\Crf3\RULE60\10076840.raw**
Output Set: **N:\CRF3\05212002\J076840.raw**

<110> APPLICANT: Murphy, et al.
<120> TITLE OF INVENTION: METHODS OF MODIFYING EUKARYOTIC CELLS
<130> FILE REFERENCE: REG 780B
<140> CURRENT APPLICATION NUMBER: 10/076,840
<141> CURRENT FILING DATE: 2002-02-15
<150> PRIOR APPLICATION NUMBER: US/09/784,859
<151> PRIOR FILING DATE: 2001-02-16
<160> NUMBER OF SEQ ID NOS: 6
<170> SOFTWARE: PatentIn version 3.0
<210> SEQ ID NO: 1
<211> LENGTH: 25
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 gene primer
<400> SEQUENCE: 1
agctaccagc tgcagatgcg ggcag 25
<210> SEQ ID NO: 2
<211> LENGTH: 28
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 gene primer
<400> SEQUENCE: 2
ctccccagcc tgggtctgaa agatgacg 28
<210> SEQ ID NO: 3
<211> LENGTH: 24
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 gene primer
<400> SEQUENCE: 3
gacctcactt gctacactga ctac 24
<210> SEQ ID NO: 4
<211> LENGTH: 28
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 gene primer
<400> SEQUENCE: 4
acttgtgtag gctgcagaag gtctcttg 28
<210> SEQ ID NO: 5
<211> LENGTH: 1799

RAW SEQUENCE LISTING DATE: 05/21/2002
PATENT APPLICATION: US/10/076,840 TIME: 14:22:23

Input Set : N:\Crf3\RULE60\10076840.raw
Output Set: N:\CRF3\05212002\J076840.raw

<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 cDNA
<400> SEQUENCE: 5

```
ccccgggctt cctgttctaa taagaatacc tcctaggtcc cccatgggct aacctcatct     60
ttggtactca acaggggtct tctttatgag cttcggacca gctcttttga tgtggcaggg    120
actgaccctg ggtggggaag ccactcagtg catgacccca gctggttcac cacatatacc    180
acatactttt cttgcaggtc tgggacacag catgccccgg ggcccagtgg ctgccttact    240
cctgctgatt ctccatggag cttggagctg cctggacctc acttgctaca ctgactacct    300
ctggaccatc acctgtgtcc tggagacacg gagccccaac cccagcatac tcagtctcac    360
ctggcaagat gaatatgagg aacttcagga ccaagagacc ttctgcagcc tacacaagtc    420
tggccacaac accacacata tatggtacac gtgccatatg cgcttgtctc aattcctgtc    480
cgatgaagtt ttcattgtca acgtgacgga ccagtctggc aacaactccc aagagtgtgg    540
cagctttgtc ctggctgaga gcatcaagcc agctcccccc ttgaacgtga ctgtggcctt    600
ctcaggacgc tatgatatct cctgggactc agcttatgac gaaccctcca actacgtgct    660
gagaggcaag ctacaatatg agctgcagta tcggaacctc agagacccct atgctgtgag    720
gccggtgacc aagctgatct cagtggactc aagaaacgtc tctcctccct gaagagttcc    780
acaaagattc tagctaccag ctgcagatgc gggcagcgcc tcagccaggc acttcattca    840
gggggacctg gagtgagtgg agtgaccccg tcatctttca gacccaggct ggggagcccg    900
aggcaggctg ggaccctcac atgctgctgc tcctggctgt cttgatcatt gtcctggttt    960
tcatgggtct gaagatccac ctgccttgga ggctatggaa aaagatatgg gcaccagtgc   1020
ccacccctga gagtttcttc cagcccctgt acagggagca cagcgggaac ttcaagaaat   1080
gggttaatac ccctttcacg gcctccagca tagagttggt gccacagagt tccacaacaa   1140
catcagcctt acatctgtca ttgtatccag ccaaggagaa gaagttcccg gggctgccgg   1200
gtctggaaga gcaactggag tgtgatggaa tgtctgagcc tggtcactgg tgcataatcc   1260
ccttggcagc tggccaagcg gtctcagcct acagtgagga gagagaccgg ccatatggtc   1320
tggtgtccat tgacacagtg actgtgggag atgcagaggg cctgtgtgtc tggccctgta   1380
gctgtgagga tgatggctat ccagccatga acctggatgc tggcagagag tctggtccta   1440
attcagagga tctgctcttg gtcacagacc ctgcttttct gtcttgtggc tgtgtctcag   1500
gtagtggtct caggcttggg ggctccccag gcagcctact ggacaggttg aggctgtcat   1560
ttgcaaagga aggggactgg acagcagacc caacctggag aactgggtcc ccaggagggg   1620
gctctgagag tgaagcaggt tcccccccctg gtctggacat ggacacattt gacagtggct   1680
ttgcaggttc agactgtggc agccccgtgg agactgatga aggacccct cgaagctatc   1740
tccgccagtg ggtggtcagg acccctccac ctgtggacag tggagcccag agcagctag    1799
```

<210> SEQ ID NO: 6
<211> LENGTH: 529
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Mouse OCR10 protein
<400> SEQUENCE: 6

```
Met Pro Arg Gly Pro Val Ala Ala Leu Leu Leu Leu Ile Leu His Gly
1               5                  10                  15
Ala Trp Ser Cys Leu Asp Leu Thr Cys Tyr Thr Asp Tyr Leu Trp Thr
            20                  25                  30
Ile Thr Cys Val Leu Glu Thr Arg Ser Pro Asn Pro Ser Ile Leu Ser
        35                  40                  45
 Leu Thr Trp Gln Asp Glu Tyr Glu Glu Leu Gln Asp Gln Glu Thr Phe
```

RAW SEQUENCE LISTING DATE: 05/21/2002
PATENT APPLICATION: US/10/076,840 TIME: 14:22:23

Input Set : N:\Crf3\RULE60\10076840.raw
Output Set: N:\CRF3\05212002\J076840.raw

```
101          50                  55                  60
102      Cys Ser Leu His Lys Ser Gly His Asn Thr Thr His Ile Trp Tyr Thr
103      65                  70                  75                  80
104      Cys His Met Arg Leu Ser Gln Phe Leu Ser Asp Glu Val Phe Ile Val
105                      85                  90                  95
106      Asn Val Thr Asp Gln Ser Gly Asn Asn Ser Gln Glu Cys Gly Ser Phe
107                  100                 105                 110
108      Val Leu Ala Glu Ser Ile Lys Pro Ala Pro Pro Leu Asn Val Thr Val
109              115                 120                 125
110      Ala Phe Ser Gly Arg Tyr Asp Ile Ser Trp Asp Ser Ala Tyr Asp Glu
111          130                 135                 140
112      Pro Ser Asn Tyr Val Leu Arg Gly Lys Leu Gln Tyr Glu Leu Gln Tyr
113      145                 150                 155                 160
114      Arg Asn Leu Arg Asp Pro Tyr Ala Val Arg Pro Val Thr Lys Leu Ile
115                      165                 170                 175
116      Ser Val Asp Ser Arg Asn Val Ser Leu Leu Pro Glu Glu Phe His Lys
117                  180                 185                 190
118      Asp Ser Ser Tyr Gln Leu Gln Met Arg Ala Ala Pro Gln Pro Gly Thr
119              195                 200                 205
120      Ser Phe Arg Gly Thr Trp Ser Glu Trp Ser Asp Pro Val Ile Phe Gln
121          210                 215                 220
122      Thr Gln Ala Gly Glu Pro Glu Ala Gly Trp Asp Pro His Met Leu Leu
123      225                 230                 235                 240
124      Leu Leu Ala Val Leu Ile Ile Val Leu Val Phe Met Gly Leu Lys Ile
125                      245                 250                 255
126      His Leu Pro Trp Arg Leu Trp Lys Lys Ile Trp Ala Pro Val Pro Thr
127                  260                 265                 270
128      Pro Glu Ser Phe Phe Gln Pro Leu Tyr Arg Glu His Ser Gly Asn Phe
129              275                 280                 285
130      Lys Lys Trp Val Asn Thr Pro Phe Thr Ala Ser Ser Ile Glu Leu Val
131          290                 295                 300
132      Pro Gln Ser Ser Thr Thr Thr Ser Ala Leu His Leu Ser Leu Tyr Pro
133      305                 310                 315                 320
134      Ala Lys Glu Lys Lys Phe Pro Gly Leu Pro Gly Leu Glu Glu Gln Leu
135                      325                 330                 335
136      Glu Cys Asp Gly Met Ser Glu Pro Gly His Trp Cys Ile Ile Pro Leu
137                  340                 345                 350
138      Ala Ala Gly Gln Ala Val Ser Ala Tyr Ser Glu Glu Arg Asp Arg Pro
139              355                 360                 365
140      Tyr Gly Leu Val Ser Ile Asp Thr Val Thr Val Gly Asp Ala Glu Gly
141          370                 375                 380
142      Leu Cys Val Trp Pro Cys Ser Cys Glu Asp Asp Gly Tyr Pro Ala Met
143      385                 390                 395                 400
144      Asn Leu Asp Ala Gly Arg Glu Ser Gly Pro Asn Ser Glu Asp Leu Leu
145                      405                 410                 415
146      Leu Val Thr Asp Pro Ala Phe Leu Ser Cys Gly Cys Val Ser Gly Ser
147                  420                 425                 430
148      Gly Leu Arg Leu Gly Gly Ser Pro Gly Ser Leu Leu Asp Arg Leu Arg
149              435                 440                 445
```

RAW SEQUENCE LISTING DATE: 05/21/2002
PATENT APPLICATION: US/10/076,840 TIME: 14:22:23

Input Set : N:\Crf3\RULE60\10076840.raw
Output Set: N:\CRF3\05212002\J076840.raw

```
150       Leu Ser Phe Ala Lys Glu Gly Asp Trp Thr Ala Asp Pro Thr Trp Arg
151           450                 455                 460
152       Thr Gly Ser Pro Gly Gly Gly Ser Glu Ser Glu Ala Gly Ser Pro Pro
153       465                 470                 475                 480
154       Gly Leu Asp Met Asp Thr Phe Asp Ser Gly Phe Ala Gly Ser Asp Cys
155                       485                 490                 495
156       Gly Ser Pro Val Glu Thr Asp Glu Gly Pro Pro Arg Ser Tyr Leu Arg
157                   500                 505                 510
158       Gln Trp Val Val Arg Thr Pro Pro Pro Val Asp Ser Gly Ala Gln Ser
159               515                 520                 525
160       Ser
```

VERIFICATION SUMMARY DATE: 05/21/2002
PATENT APPLICATION: US/10/076,840 TIME: 14:22:24

Input Set : N:\Crf3\RULE60\10076840.raw
Output Set: N:\CRF3\05212002\J076840.raw